

# इंटरनेट

# मानक

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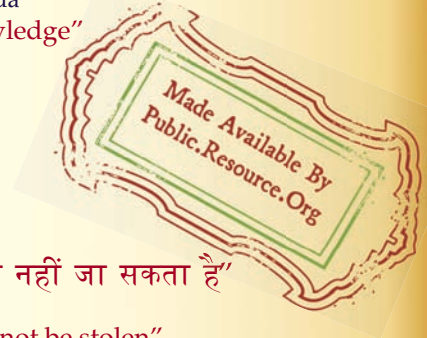
IS 3877 (1967): Wax Knife, Dental [MHD 8: Dentistry]



“ज्ञान से एक नये भारत का निर्माण”

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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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IS : 3877 - 1967

*Indian Standard*  
SPECIFICATION FOR  
WAX KNIFE, DENTAL

UDC 616·314·089·28 : 615·472



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MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 1

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April 1967

**AMENDMENT NO. 1      DECEMBER 1968**  
**TO**  
**IS : 3877-1967 SPECIFICATION FOR WAX**  
**KNIFE, DENTAL**

**Addendum**

( *Page 5, clause 3.1, line 4* ) — Introduce the following new matter after the first sentence:

‘ In either case, the blade may be given a coating of plasti-peel, if so desired by the purchaser. ’

( CPDC 21 )

Printed at Neelkamal Printers, Delhi 6, India

# Indian Standard

## SPECIFICATION FOR WAX KNIFE, DENTAL

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# *Indian Standard*

## SPECIFICATION FOR WAX KNIFE, DENTAL

### 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 30 January 1967, after the draft finalized by the Dental Instruments Sectional Committee had been approved by the Consumer Products Division Council.

**0.2** This standard is one of a series of Indian Standard specifications for prosthetic dental instruments and has been formulated at the instance of the Advisory Committee for Development of Surgical Instruments, Medical Equipment and Appliances of the Government of India. Other specifications published so far in this series are:

IS : 3875-1966 Hot plate, wax levelling, dental

IS : 3876-1967 Plaster knife, dental

IS : 3878-1967 Plaster shears, dental

IS : 3879-1967 Wax spatula, dental

**0.3** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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### 1. SCOPE

**1.1** This standard specifies the requirements for wax knife.

### 2. MATERIALS

**2.1 Blade** — The blade of the knife shall be made from stainless steel or carbon steel. The stainless steel shall conform to designation 30Cr13

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\*Rules for rounding off numerical values (revised).

of Schedule V and the carbon steel to designation T80 of Schedule VI of IS : 1570-1961\*.

**2.2 Handle Scales** — The handle scales shall be made of wood or ebonite. The wood used shall be well seasoned, straight grained and free from knots and cracks.

**2.2.1** The wood shall be chosen from any of the following species and the moisture content shall not exceed 12 percent:

<i>Botanical Name</i>	<i>Standard Trade Name</i>
<i>Dalbergia latifolia</i> Roxb.	rosewood ( blackwood )
<i>Dalbergia sissoo</i> Roxb.	sissoo
<i>Tectona grandis</i> Linn. f.	teak

**2.3 Rivets** — The rivets shall either be made from mild steel or a suitable aluminium alloy.

### 3. SHAPE AND DIMENSIONS

**3.1** The wax knife shall conform to shape and dimensions as shown in Fig. 1.

### 4. WORKMANSHIP AND FINISH

**4.1** The cutting edge of the wax knife shall be properly sharpened to an angle of  $25^\circ \pm 4^\circ$ . All edges except the cutting edge shall be smooth and rounded. The cutting edge shall be free from burrs, feathers, nicks and waviness. The riveting shall be firm, secure and sound.

**4.2** When the blade is made of stainless steel, it shall be suitably passivated and finished bright all over. In case the blade is made of carbon steel, it shall be plated chromium over nickel, except the cutting edge. The thickness of the plating shall be as follows:

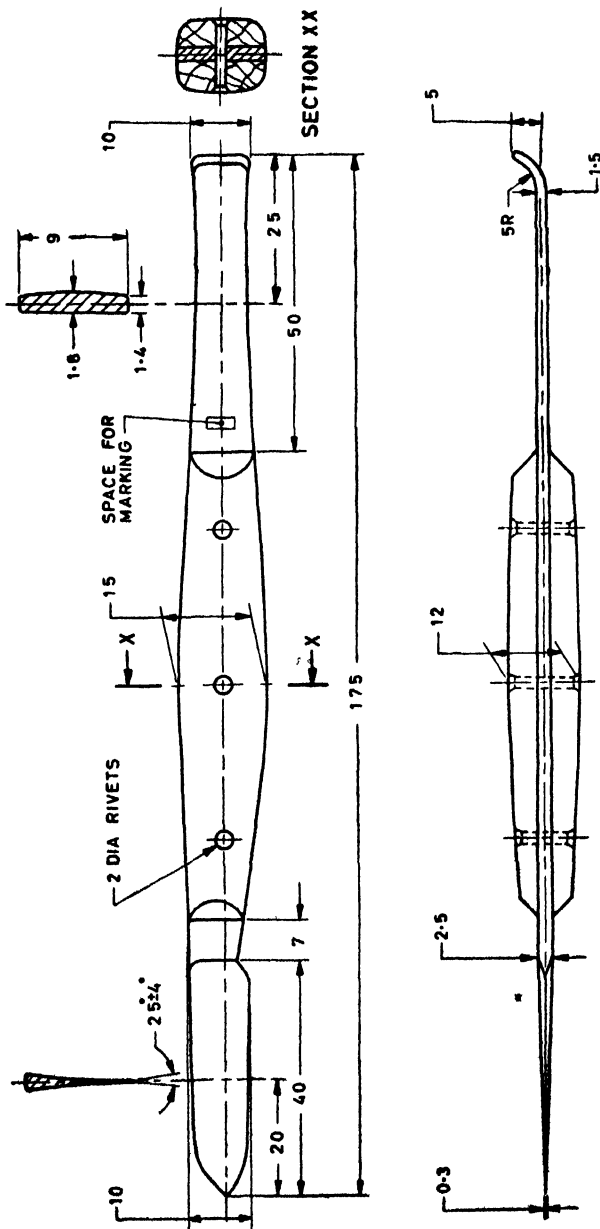
<i>Finish</i>	<i>Minimum Thickness</i>
Nickel	15 $\mu\text{m}$
Chromium	0.15 $\mu\text{m}$

**4.2.1** The plating shall be even and uniform throughout and shall be bright. The plated surfaces shall be free from visible plating defects, such as unplated spots, cracks, stains or blisters. The plating shall be non-porous, firm and shall not peel off. In other respects, the plating shall conform to IS : 1068-1958†.

\*Schedules for wrought steels for general engineering purposes.

†Specification for copper, nickel and chromium electroplated coatings.





All dimensions in millimetres.

FIG. 1 WAX KNIFE, DENTAL

## 5. HEAT TREATMENT

5.1 The blade shall be uniformly hardened and tempered to 400 to 450 HV.

## 6. TEST FOR CORROSION RESISTANCE

6.1 The knife with stainless steel blade shall be tested for corrosion resistance as given in 6.1.1.

6.1.1 *Copper Sulphate Test* — The knife shall be scrubbed with soap and warm water, rinsed in hot water followed by a dip in ethyl alcohol (95 percent) and dried. The knife then shall be immersed in copper sulphate solution at room temperature for 6 minutes and then washed with fresh water or wiped with wet cotton wool. The copper sulphate solution shall be made up as follows:

Copper sulphate ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ )	4.0 g
Sulphuric acid ( $\text{H}_2\text{SO}_4$ ) ( sp gr 1.84 )	10.0 g
Water ( $\text{H}_2\text{O}$ )	90.0 ml

There shall be no red stains or spots on the knife blade after the test, but the polished surface becoming dull may be permitted.

## 7. MARKING

7.1 The instrument shall be legibly and indelibly marked with the manufacturer's name, initials or trade-mark and the country of manufacture. In case of stainless steel, the word 'SS' shall also be marked on the blade.

7.1.1 Each knife may also be marked with the ISI Certification Mark.

**NOTE** — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

## 8. PACKING

8.1 The carbon steel blade shall be coated with a thin film of a solution containing corrosion inhibitors and wrapped in wax paper, while stainless steel blade knife shall be wrapped either in a polyethylene bag or wax paper. Each knife, then, shall be packed in cartons in accordance with best trade practice. The cartons shall bear the name of the instrument, manufacturer's name, initials or trade-mark and country of manufacture.

## INDIAN STANDARDS INSTITUTION

The Indian Standards Institution ( ISI ), which started functioning in 1947, is the national standards organization for India. Its principal object is to prepare standards on national and international basis and promote their general adoption.

The overall control of ISI, which is run and financed jointly as a non-profit making body by the Government and private enterprise, is exercised by the General Council, composed of representatives of Central and State Governments; leading trade, scientific and technological organizations; and subscribing members. The Union Minister of Industry is the ex-officio President of ISI.

The present technical activity of ISI is carried out through 8 Division Councils for Agricultural and Food Products; Chemical; Civil Engineering; Consumer Products; Electrotechnical; Mechanical Engineering; Structural and Metals; and Textile. All technical work relating to the formulation and revision of standards is done by committees appointed by and under the direction of their respective Division Councils. These committees consist of experts drawn from manufacturing units, technical institutions, purchase organizations and other concerned bodies.

To make available benefits of Indian Standards to the common man, ISI has introduced its Certification Marks Scheme under the *Indian Standards Institution ( Certification Marks ) Act, 1952*, as amended by the *Amendment Act, 1961*. According to this Act, quality goods conforming to Indian Standards can carry the ISI Certification Mark. This Mark is a third-party guarantee of quality of marked goods. Licences to use the ISI Certification Mark are granted to manufacturers using reliable methods of quality control subject to overall inspection by ISI.

In the International field, ISI represents India on the International Organization for Standardization ( ISO ) and the International Electrotechnical Commission ( IEC ). ISO and IEC respectively link 54 and 40 countries, and function through 118 and 58 technical committees; ISI participates in 83 technical committees of ISO and all the technical committees of IEC. The committees and subcommittees of IEC and ISO for which ISI holds the secretariat deal with: Electric Fans, Lac, Mica, Pictorial Markings for Handling of Goods, Liquid Flow Measurements in Open Channels, Procedures for Inter-conversion of Values, Spices and Condiments, and Stimulants.

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